UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,613	08/25/2000	Jung Min Song	CIT/K-126	4585

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EXAMINER
JOSEPH, THOMAS J

ART UNIT	PAPER NUMBER
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DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communicati n appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>8-25-2000</u> .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-29</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1, 3, 4, 6, 7, 10, 11, 21, and 23 – 29 are rejected under 35 U.S.C. 102(a)

as being anticipated by Yeo et al. (US 5,831,945).

Claim 1:

Yeo teaches a video browsing system (col. 6, lines 12 – 22). Yeo teaches a

character screen that displays characters of the video (col. 8, lines 10 – 27). Any

representation of a human being or an alphanumeric symbol is considered a

representation of a character. Yeo teaches a main screen which displays video

segments corresponding to significant events showing a relation between two displayed

characters of the said character screen according to a user selection, wherein said

selection may be constant or variable (fig. 4; col. 8, lines 10 – 27).

Claim 3:

Yeo teaches selecting a character (fig. 5). When the user selects a character,

two additional characters are also selected to which the first character are linked.

Claim 4:

Yeo teaches a character relation-variable event screen which displays

connections between variable relations and significant events (fig. 5; col. 3, lines 5 - 10).

Claim 6:

Yeo teaches constant relations and variable relations being displayed in a tree-like structure (fig. 12). Yeo describes hierarchical building of a transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like structure. Yeo teaches a main scene screen which displays significant events corresponding to one of either a constant relation or variable relation selected from the relation screen (fig. 4). Yeo teaches a relation screen, which displays constant relations, and variable relations between characters selected from the character screen and related characters (fig. 4).

Claim 7:

Yeo teaches a constant relation being displayed on a top level of said tree-like structure and variable relations being displayed on lower levels of said tree-like structure (fig. 4). Yeo describes hierarchical building of a transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like structure.

Claim 10:

Yeo teaches a selection screen wherein the relation screen displays constant relations and variable relations corresponding a relation type selected by a user through the said selection screen (fig. 4).

Claim 11:

Yeo teaches a relation type may be one of a family relation, a business relation, or a social relation (fig. 2; col. 2, lines 62 – 65). The use of icons represents various family, business, and social relations. The clustering depicting here representing video shots of the democratic convention demonstrates clustering based on a type of a family

relation, a business relation, or a social relation. Political relationships are often

describes as being family, business, or social.

Claim 21:

Yeo teaches a character menu configured to display characters that are part of a

video (fig. 4; col. 8, lines 10 – 27). Yeo teaches a video display configured to display

segments from the video, wherein the video segments correspond to events showing a

relationship between two displayed characters in said character menu (fig. 4; col. 8,

lines 10 – 27).

Claim 23:

Yeo teaches a user selecting two characters through the character menu to

display the video segments corresponding to events showing the relationship between

the two displayed characters (fig. 4; col. 8, lines 10 – 27).

Claim 24:

Yeo teaches a character relationship-variable event menu configured to display

connections between variable relationships and events (fig. 4; col. 8, lines 10 – 27).

Claim 25:

Yeo teaches character relationship-variable event menu configured to display

either one or both the variable relationship and events by key frames (fig. 4; col. 8, lines

10 – 27).

Claim 26:

Yeo teaches a relationship menu configured to display constant relationships and

variable relationships between a character selected from the character menu and

related characters, wherein said constant relationships and variable relationships are

displayed in a tree structure (fig. 4; col. 8, lines 10 – 27). Yeo describes hierarchical

building of a transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like

structure.

Claim 27:

Yeo teaches the constant relationship being displayed on a top level of said tree

structure and variable relationships that are displayed on lower levels of said tree-like

structure (fig. 4; col. 8, lines 10 – 27). Yeo describes hierarchical building of a transition

graph by cluster (fig, 12). This is intrinsic teaching of a tree-like structure.

Claim 28:

Yeo teaches a relationship type between characters being at least one of a family

relationship, a business relationship, and a social relationship (fig. 4; col. 10, lines 19 –

45).

Claim 29:

Yeo teaches a relationship being at least one of a constant relationship and a

variable relationship (fig. 4; col. 8, lines 10 – 27).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 2, 5, 8, 9, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yeo et al. (US 5,831,945) as applied to claims 1, 4, 6, and 21 above,

and further in view of Schein et al. (US 6,323,911).

Claim 2:

Yeo fails to teach a main screen displaying video segments by summary data of

said video segments. Schein teaches a method allowing for a main screen to display

video segments by summary data of said video segments (fig. 4a, #126). It would have

been obvious to one with ordinary skill in the art at the time of the invention to combine

a main screen displaying video segments by summary data of said video segments

taught by Schein with the processing of video clips and character disclosed by Yeo.

Doing so enables the user to query and view written summaries corresponding to

specific video clips.

Claim 5:

Yeo fails to teach operating key frames. Schein teaches a character-variable

event screen displaying either one or both the variable relations and events by key

frames (fig. 5; col. 3, lines 5 – 10). It would have been obvious to combine operating a

character-variable event screen displaying either one or both the variable relations and

events by key frames taught by Schein with the characters and relationships disclosed

by Yeo. Doing so enables the user to query and access characters that match a key

input item.

Claim 8:

Yeo fails to teach a main scene screen displaying the significant events by key frames. Schein teaches a main scene screen displaying the significant events by key frames (fig. 4a, #32). The icons represent key frames. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the main scene screen displaying the significant events by key frames taught by Schein with the character based relationships disclosed by Yeo. Doing so provides a method for linking various characters to events.

Claim 9:

Yeo fails to teach a selection screen wherein the main scene screen displaying either one or both main significant events or secondary significant events corresponding to said relation selected from the relation screen, according to a user selection through said selection screen. Schein teaches a selection screen wherein the main scene screen displaying either one or both main significant events or secondary significant events corresponding to said relation selected from the relation screen, according to a user selection through said selection screen (fig. 4a, #102). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine a selection screen wherein the main scene screen displaying either one or both main significant events or secondary significant events corresponding to said relation selected from the relation screen, according to a user selection through said selection screen taught by Schein with the characters and relationships disclosed by Yeo. Doing so enables the linking of various characters with various events.

Claim 22:

Yeo teaches characters but fails to teach characters that are represented by actors in the video (fig. 4; col. 8, lines 10 – 27). Yeo fails to teach making reference to actors or performers. Schein teaches making reference to actors or performers (fig. 9b – 9c). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine making reference to actors or performers taught by Schein with the establishing of relationships between various characters disclosed by Yeo. Doing so enables the user to access the names of actors and performers when selecting icons.

5.   Claims 12 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,323,911) and Yeo et al. (US 5,831,945).

Claim 12:

Schein teaches a visualization description scheme (DS) which includes a highlight view DS for displaying event data by a highlight and a key frame view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enable a display of multi-levels of highlight data and wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels containing summarized data (fig. 4a, #110). The highlighted area covers multiple rows. These rows represent levels. Schein teaches a syntactic structure DS which includes information for displaying video segments of a video (fig. 4a, #110). Schein teaches a semantic structure DS which includes additional information describing a video (fig. 4a). Readable information uses a semantic structure DS for providing additional information. Graphics as well as a matrix are semantic structures.

While Schein fails to teach a video browsing system, the EPG taught by Schein suggest

a video browsing system by giving the user the ability to tune into and view the contents

video signals. Yeo teaches a video browsing system (col. 6, lines 12 – 22). It would

have been obvious to one with ordinary skill in the art at the time of the invention to

combine the video browsing taught by Yeo with the description scheme disclosed by

Schein. Doing so enables the user to query, select and view various video clips.

Claim 13:

Schein teaches a syntactic structure DS organized into a segment DS including

video segment data and a time DS including corresponding temporal positions of each

video segment data within the video data (fig. 4a, #126).

Claim 14:

Schein teaches a semantic structure DS organized into sub-level structures (fig.

4a). Rows demonstrate various levels.

Schein teaches an event DS which includes event information, wherein said

event DS is organized into sub-level structures of a reference to segment which

includes reference information necessary for displaying a video segment of a video

corresponding to the event selected by a user. Further, an annotation DS includes

information that connects said selected events which actual positions of said selected

events within video and information explaining said selected events (fig. 4a, #110).

Schein teaches an object which includes object information (fig. 4a, #32). Yeo

teaches an event/relation graph DS which includes information on at least one of

constant relations between objects, variable relations between objects, or relations

between objects and events, wherein said event/object relation graph DS is organized

into an entity relation with sub-level structures of a Reference to Object which connects

objects having either a constant relation or variable relation, a Reference to Event that

connects events which are significant to a relation between each connected object, and

a relation that includes information on the nature and title of the relation between each

connected object (fig. 4).

Claim 15:

Schein teaches a character screen, which displays characters of a video (fig. 4a,

#126). Schein teaches a main screen which displays video segments corresponding to

significant events showing a relation between two displayed characters of said

character screen according to a user selection, wherein said relation may be constant or

variable (fig. 4a, #126).

Schein fails to teach a tree structure. Yeo describes hierarchical building of a

transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like structure.

Yeo teaches video browsing (col. 6, lines 12 – 22). Yeo teaches a relation screen which

displays constant relations and variable relations between a character selected from the

character screen and related characters, wherein said constant relations and variable

relations are displayed in a tree-like structure (fig. 4). Yeo describes hierarchical

building of a transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like

structure. It would have been obvious to one with ordinary skill in the art at the time of

the invention to combine the tree structure taught by Yeo with the EPG disclosed by

Schein. Doing so enables the user to view various hierarchies within the EPG.

Claim 16:

Yeo teaches a constant relation being displayed on a top level of the said tree-like structure and variable relations are displayed on lower levels of the said tree structure (fig. 4). Yeo describes hierarchical building of a transition graph by cluster (fig, 12). This is intrinsic teaching of a tree-like structure.

Claim 17:

Schein teaches a character screen, the main screen, the relation screen, and the main scene screen being displayed using a video data structure (fig. 4a).

Schein teaches a visualization DS which includes a highlight view DS for display for displaying event data by a highlight and a key frame view DS for displaying event data as key frames, wherein the view DS for displaying event data as key frames, wherein the highlight view DS is organized into multiple levels which enables a display of multi-levels of highlight data and wherein the key frame view DS is organized into multiple levels which enables a display of multi-levels of summarized data (fig. 4a, #110).

Schein teaches a syntactic structure DS which includes information for displaying actual video segments of a video (fig. 4a, #110).

Schein teaches a semantic structure DS which includes additional information describing a video (fig. 4a). Readable information uses the semantic structure DS for providing additional information.

Claim 18:

Schein teaches a selection screen wherein the main scene screen displays either

one or both main significant events or secondary significant events corresponding to

said relation selected from the relation screen, according to a user selection through

said selection screen (fig. 4a, #102).

Claim 19:

Schein teaches a selection screen wherein the relation screen displaying

constant relations and variable relations corresponding a relation type selected by a

user through said selection screen (fig. 4a, #102).

Claim 20:

Yeo teaches that a relation type may be one of a family relation, a business

relation, or a social relation (fig. 4).

Response to Arguments

6.   The Applicant responds to the rejection of claim 1 by stating that Yeo teach a

transition graph instead of video segments. The Examiner responds by stating that the

transition graph taught by Yeo is used for displaying of video segments. The Applicant

asserts that Yeo fails to teach displaying the relationship between two different

characters. The Examiner responds by stating that the links displayed by Yeo depicts

the relationship between characters in the form of icons.

Regarding claims 12, the Applicant asserts that the rows and columns in Schein

do not teach levels. The Examiner responds that rows indicate levels on a graph. The

Applicant asserts that Schein does not teach video browsing. The Examiner responds

by stating any ability to view video data whether from a signal or a file is a method for

video browsing.   The Applicant asserts that Schein does not indicate a character

screen. The Examiner responds that both Schein and Yeo teach graphical interfaces

with selectable items. These items are characters.

The Applicant responds to the rejections of claims 2 – 11 and 13 – 29. However,

the Applicant provides no additional reasoning supporting the withdrawing of the

previous rejection.

The Applicant does assert that Yeo and Schein cannot be combined. The

Examiner responds by stating that both Yeo and Schein demonstrate methods for

accessing video data and outputting such data in human viewable form. Schein by

teaching accessing video data suggests the need for giving the ability to access video

signals originating on a file stored on a readable medium as well as video signals

received from a broadcast. Yeo demonstrates a method for receiving signals from a

video file. Combining Yeo and Schein enables the user to access data stored on

readable mediums as well as broadcast data.

Due to at least the above reasons, the rejections of claims 1 – 29 remain

standing.

<div align="center">***Conclusion***</div>

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Thomas J Joseph whose telephone number is 703-305-

3917. The examiner can normally be reached Mondays through Fridays from 7:30 am -

4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine Kincaid can be reached on 703-308-0640. The fax phone numbers

for the organization where this application or proceeding is assigned are 703-746-7239

for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

3900.

KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

tjj
January 20, 2004